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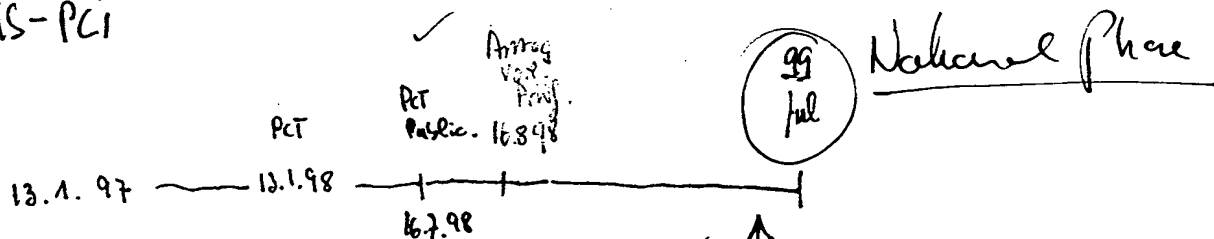
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(54) Title: **EXPRESSION MONITORING FOR GENE FUNCTION IDENTIFICATION**

(57) Abstract

This invention provides methods, compositions and apparatus for mapping the regulatory relationship among genes by massive parallel monitoring gene expression. In some embodiments, mutations in the up-stream regulatory genes are detected by monitoring the change in down-stream gene expression. Similarly, the function of a specific mutation in an up-stream gene is determined by monitoring the down-stream gene expression. In addition, regulatory function of a target gene can be determined by monitoring the expression of a large number of down-stream genes. The invention also provides specific embodiments for detecting p53 functional homozygous and heterozygous mutations and for determining the function of p53 mutations.

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